



White Paper

Competitive Landscape of Frequency Spectrum & Related Technology Marketplace



Cost Savings Guidance

Competitive Landscape of Frequency Spectrum & Technology Solution Marketplace

Comparative Parameters	IDA	Unlicensed Point to Multipoint Wireless	Unlicensed Mesh	Land Mobile Radio [LMR]	2G / 3G / 4G
Frequency Spectrum Technical Comparison					
Frequencies Used	220 MHz	900 MHz 2.4 GHz 5.8 GHz	900 MHz 2.4 GHz	450 MHz 800 MHz 900 MHz	700 MHz [4G] 800 MHz [3G] 1900 MHz [3G] 2.5 GHz [4G]
Companies	IDA	Motorola GE	Landis+Gyr Silver Spring	Motorola Tait	AT&T, Verizon, Sprint, T-Mobile [3G]
Licensed / Unlicensed	Licensed	Unlicensed	Unlicensed	Licensed	Licensed
Tower Range	20 Miles	Line of Sight 1 Mile Non-LOS	No Central Tower	10 – 20 Miles	6 Miles [3G] 2 Miles [4G]
Mission Critical Enabled	Yes	No	Yes	Yes	2G / 3G = No 4G = Yes
Fixed Applications	Yes	Yes	Yes	Yes	Yes
Mobile Applications	Yes	No	No	Yes	Yes
Data Rate	High	Low to High	Low	Low	200 Kbps – 1 Mbps
Equipment Cost	1X	3X	2X	4X	4X
Recurring Network Maintenance Cost	1X	3X	No	5X	2X
Overall Range	Large	Line of Sight	Good	Medium	Poor - Medium
Security	High	Low	Low	High	Low
Overall Cost	\$	\$\$\$\$	\$\$\$	\$\$\$	\$\$\$\$\$

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Comparative Parameters	IDA	Unlicensed Point to Multipoint Wireless	Unlicensed Mesh	Land Mobile Radio [LMR]	2G / 3G / 4G
Voice – Radio Control Solution					
Experience in Voice Solution	35+ Years	No	No	Yes	Yes
Radio Control Technology	Yes	No	No	Yes	No
Network Cost Optimization	Yes	No	No	No	No
Overall Cost	\$	\$\$\$\$	\$\$\$	\$\$\$	\$\$\$\$\$
AVL / Fleet Telematics / Asset Tracking Solution					
Asset Tracking / AVL / Fleet Telematics Products & Services	Yes	No	No	No	No
Network Optimization	Yes	No	No	No	No
Overall Cost	\$	\$\$\$\$	\$\$\$	\$\$\$	\$\$\$\$\$
Sensor Communication Network Technology					
AMI / AMR / Sensor Data Capture Technology Solution	Yes	Yes	Yes	No	No
Overall Cost	\$	\$\$\$\$	\$\$\$	\$\$\$	\$\$\$\$\$

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Asset Tracking
Radio Control
IP Communication
Frequency Spectrum
Network Communication Infrastructure